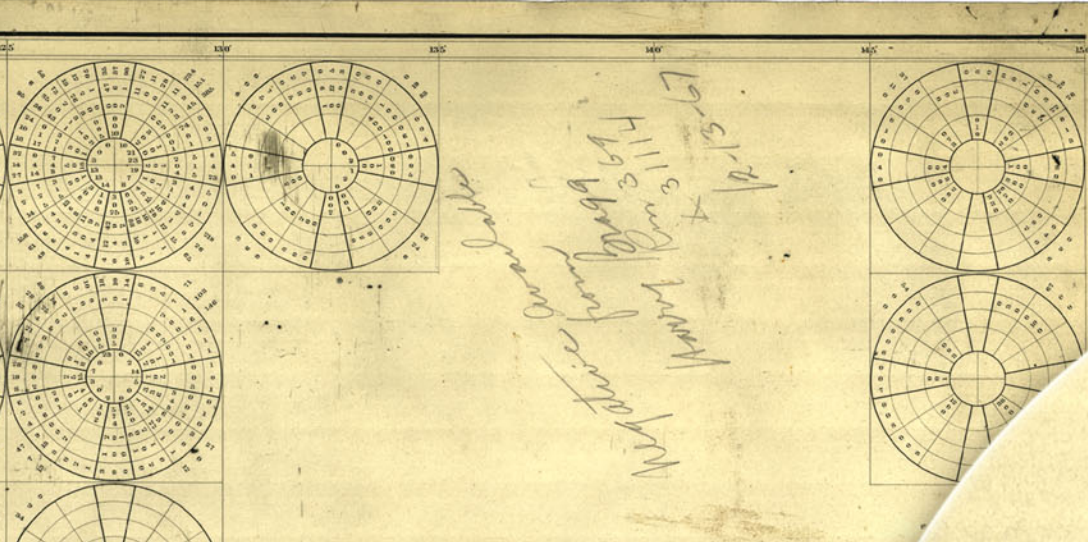



A black and white portrait of a man in academic regalia. He is wearing a dark graduation cap with a tassel and a dark gown with a light-colored stole. He is seated, leaning back slightly, and looking towards the right. The background is a plain, light color.

Built in 1909, the Maury-Brooke Hall is named for two former VMI professors whose names are notable in American naval history. John Mercer Brooke was a protégé of Maury. As a midshipman, Brooke invented a deep-sea sounding apparatus that could bring up ocean bed samples from 12,000 feet while serving at the US Naval Observatory under Maury. In latter years both were professors of physics at VMI after the Civil War, Maury from 1868 until his death in 1873 and Brooke for more than thirty years, from 1865 to 1899. Today, Maury-Brooke Hall is home to the VMI Regimental Band, *The Bomb* (cadet yearbook), *The VMI Cadet* (cadet newspaper), and the Honor Court.

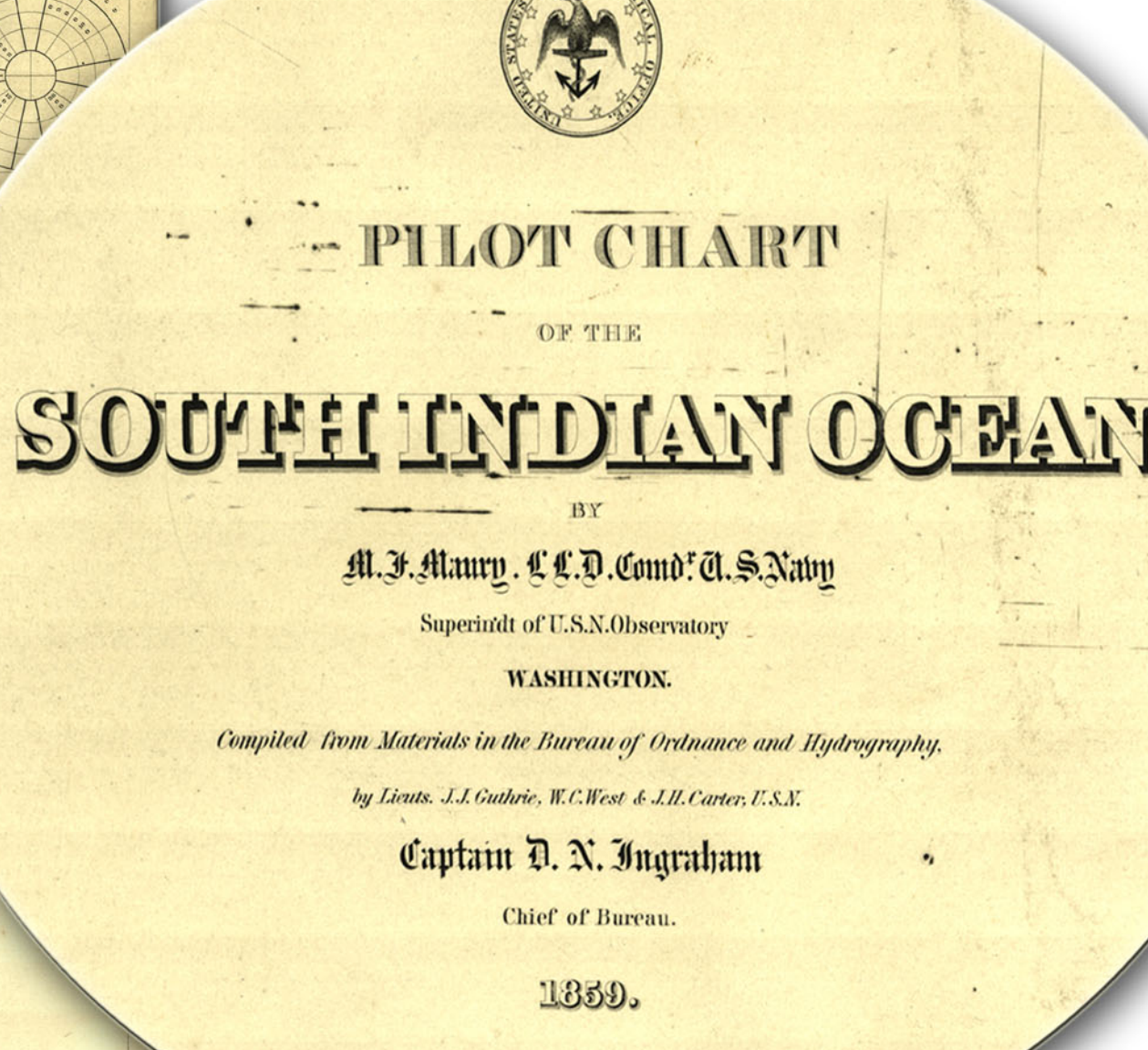
In 1962, *The Matthew Fontaine Maury Memorial Fund Scholarship*, was established by his daughter, Ann H. Maury and is used to assist worthy students.

[illegible]





PILOT CHART
 OF THE
SOUTH INDIAN OCEAN
 BY
A. F. Murray, C.E.D. Comd' U.S. Navy
 Superintendent of U.S.N. Observatory
WASHINGTON
Compiled from Materials in the Division of Ordnance and Hydrography
by Lieut. J. J. Oakley, U.S. West. A-B. Corps U.S.A.
Captain V. N. Ingraham
 Chief of Bureau.
1860.
SERIES C. 20. 3.





PILOT CHART

OF THE

SOUTH INDIAN OCEAN

BY

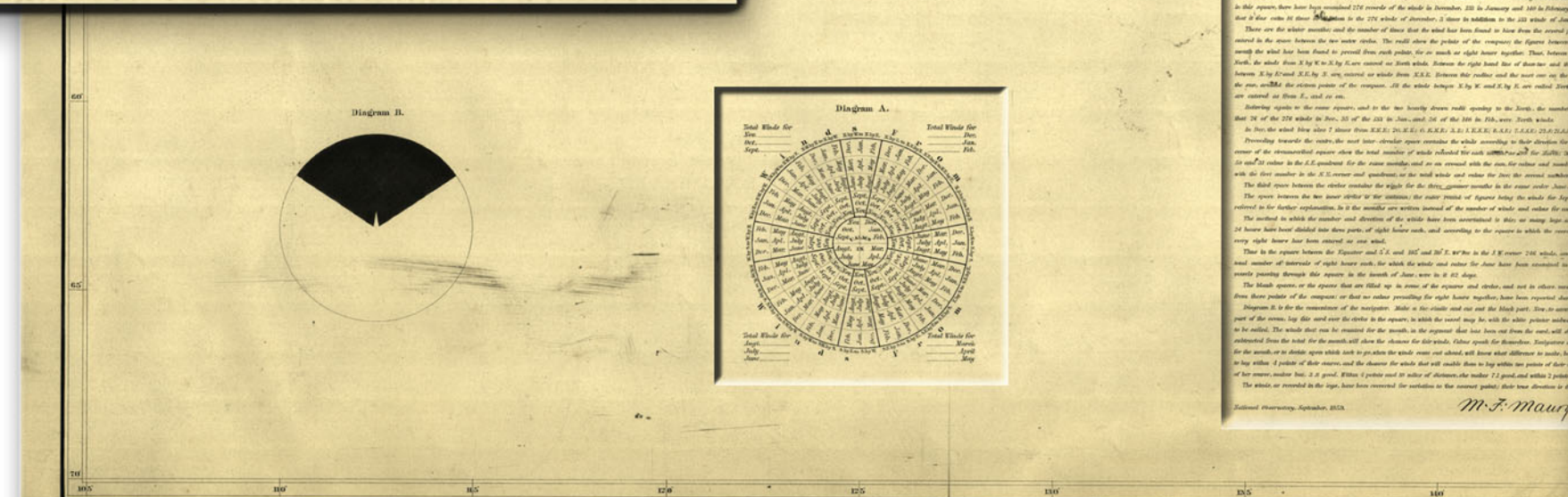
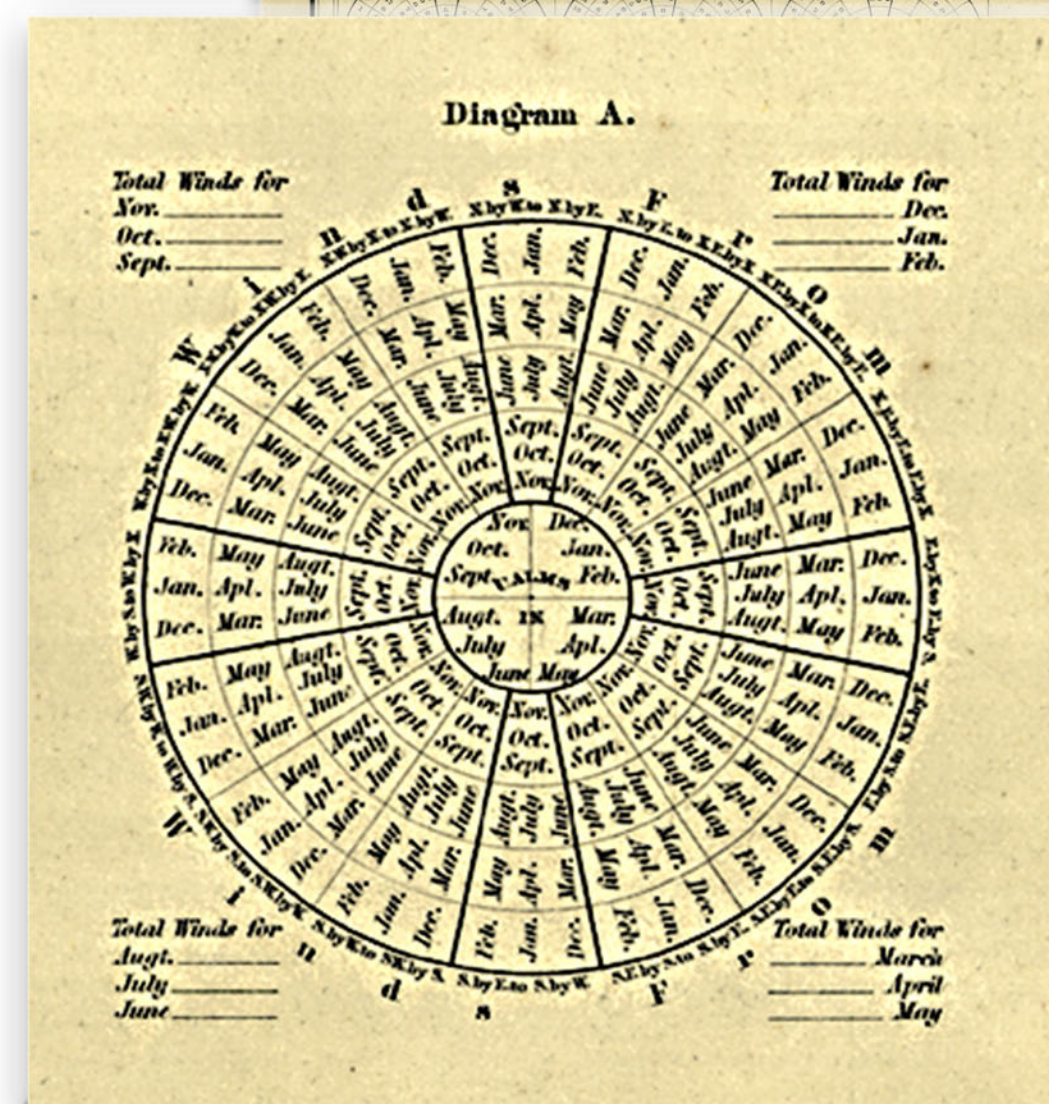
M. J. Maury, U.S. Navy
Superintendent of U.S.N. Observatory
WASHINGTON.

*Compiled from Materials in the Bureau of Ordnance and Hydrography,
by Lieuts. J.J. Guthrie, W.C. West & J.H. Carter, U.S.N.*

Captain D. N. Ingraham
Chief of Bureau.

1859.

SERIES C. NO. 3.



The object of this chart is to show the relative number of times in every 5° square of the ocean that the wind blows from the several points of the compass for each month. As for example, take the square between the Equator and 5° S. and 102° and 110° E. The figure in the N.E. corner of the circumscribed square, shows that in this square, there have been examined 276 records of the winds in December, 1933 in January and 140 in February. In the N.E. quadrant of the inner circle we see that it blew calm 16 times in January in the 276 winds of December, 3 times in addition to the 353 winds of January and that there was no calm in Feb.

These are the winter months; and the number of times that the wind has been found to blow from the several points of the compass, in the winter months, is entered in the space between the two outer circles. The radii show the points of the compass; the figures between the radii show the number of times for each month the wind has been found to prevail from each point, for so much as eight hours together. Thus, between the two heavenly dials radii pointing to the North, the radii of X by K to X by E are entered as North winds. Between the right hand line of those two and the radius to the right of that again, the winds between X by E; and N by E, are entered as wind from N. E. E. Between this radius and the next one on the right, are the winds from N. E. E. and the circle, with the sun, around the sixteen points of the compass. All the winds between X by W. and X by E. are called North winds, those between E. by X. and E. by S; are entered as from E. and so on.

Referring again to the same square, and to the two heavily drawn radii opening to the North, the numbers 26, 35, 36, between the two outer circles, mean that 26 of the 276 winds in Dec., 35 of the 133 in Jan., and 36 of the 140 in Feb., were North winds.

In Dec. the wind blew also 7 times from N.N.E; 20. N.E; 0. E.N.E; 3.E; 1. E.S.E; 8. S.E; 7. S.S.E; 22.S; 21.S.S.W. and so on.

Proceeding towards the centre, the next inter-circular space contains the while according to their direction for the three spring months. The figures in the S.E. corner of the circumferential space show the total number of winds recorded for each month: 493 for March, 369 for April, and 326 for May; exclusive of 9, 50 and 31 calms in the S.E. quadrant for the same months, and so on around with the sun, for calms and number of winds in the order of the months beginning with the first number in the S.E. corner and quadrant, or the total winds and calms for that; the second numbers for June, and so on.

The third space between the circles contains the winds for the three summer months in the same order June, July and August, between the radii.

The space between the two inner circles is for autumn; the outer round of figures being the winds for Sept. and the inner for November. Diagram A is referred to for further explanation. In it the months are written instead of the number of winds and calms for each month and point of compass.

The method in which the number and direction of the winds have been ascertained is this; as many logs as could be obtained, have been examined, the 24 hours have been divided into three parts, of eight hours each, and according to the square in which the vessel was, the prevailing direction of the wind for every eight hours has been entered as one wind.

There in the square between the Equator and 5 S. and 105° and 110° E. we see in the S.W. corner 246 winds, and in the S.W. quadrant 2 calms. These are the total number of intervals of eight hours each, for which the winds and calms for June have been examined in this 5° square of the ocean; consequently, all vessels passing through this square in the month of June, were in it 82 days.

The blank spaces, or the spaces that are filled up in some of the squares and circles, and not in others, mean that no winds have been reported in the logs from these points of the compass; or that no calms prevailing for eight hours together, have been reported during those months.

Diagram II, is for the convenience of the navigator: Make a line *ac* and *cut* the black part. Now to ascertain the chances for head and fair wind in any part of the ocean, lay this *surd* over the circles in the square, in which the vessel may be, with the white points midway between the two radii that represent the course to be sailed. The winds that can be counted for the month, in the segment that has been cut from the end, will show the chance for head wind; and this number subtracted from the total for the month will show the chance for fair winds, *Palms* speak for themselves. Navigators using this chart either to lay off their best route for the month, or to decide upon which tack to go, when the winds come out ahead, will know what difference to make, between the chance for wind that will enable them to lay within 4 points of their course, and the chance the winds that will enable them to lay within two points of their course. In sailing 10 mile, 5 ships, within six points of her course, make but, 3 or 4 good. Within 4 points and 10 miles of distance, she makes 7 good, and within 2 points, she makes good 9 or 20 miles out of ten.

The winds, as recorded in the logs, have been corrected for variation to the nearest point; their true direction is therefore given on these sheets.

National Observatory, September, 1859.

M. F. Maury Comdr^r U. S. S.